

PSEUDOTYDEINAE, A NEW SUBFAMILY OF TYDEIDAE (ACARINA)

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ABSTRACT—A new genus and species, *Pseudotydeus perplexus*, forming the new subfamily **Pseudotydeinae** of the family Tydeidae, is described from specimens collected from old lawn clippings, Columbus, Ohio.

The family Tydeidae at present consists of 17 genera for the world (Baker, 1965, 1968), and as studies of small terrestrial mites continue it is believed that many more will be discovered. These are small to very small mites, the adults ranging in size from 150 to 500 microns, with a weakly or non-sclerotized body. Palpus four-segmented, simple, usually with a setal formula of 0-2-2-5 plus 1 solenidion; tarsi with rayed empodia when present; tarsi I-II with simple solenidia; tibia I with a simple solenidion; coxal and other leg segments with variable setal counts; genital and anal areas usually separate, the anus may be ventral, dorsal or postero-ventral; peritreme lacking but with tracheae arising from the cheliceral bases; body and leg setae spinate-pilose or simple; dorsum of body with 3 pairs of setae and 1 pair of sensory setae on propodosoma, 5 pairs of dorsal and 5 pairs of lateral hysterosomal setae; venter of body always with 3 pairs of ventral setae; genital and anal setae variable in number.

Subfamily Pseudotydeinae, new subfamily

Type-genus, *Pseudotydeus*, Baker and Delfinado, new genus.

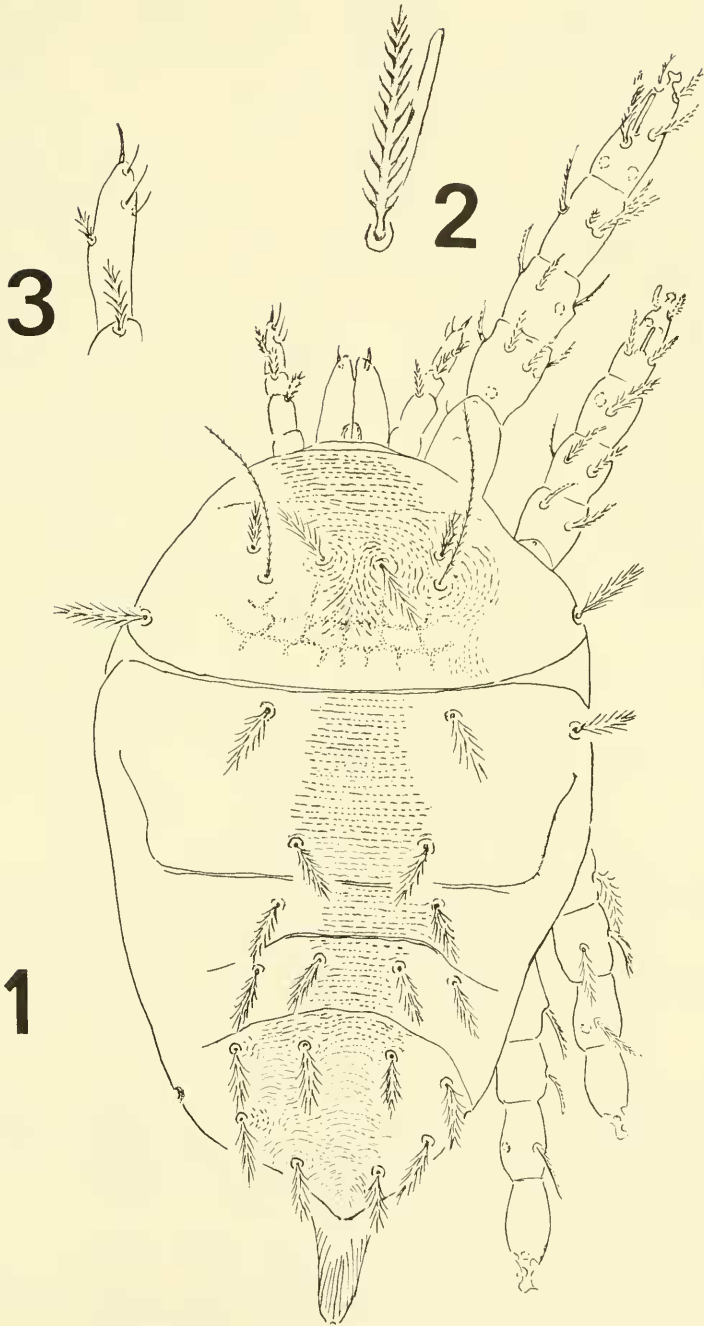
Genus *Pseudotydeus*, Baker and Delfinado, new genus.

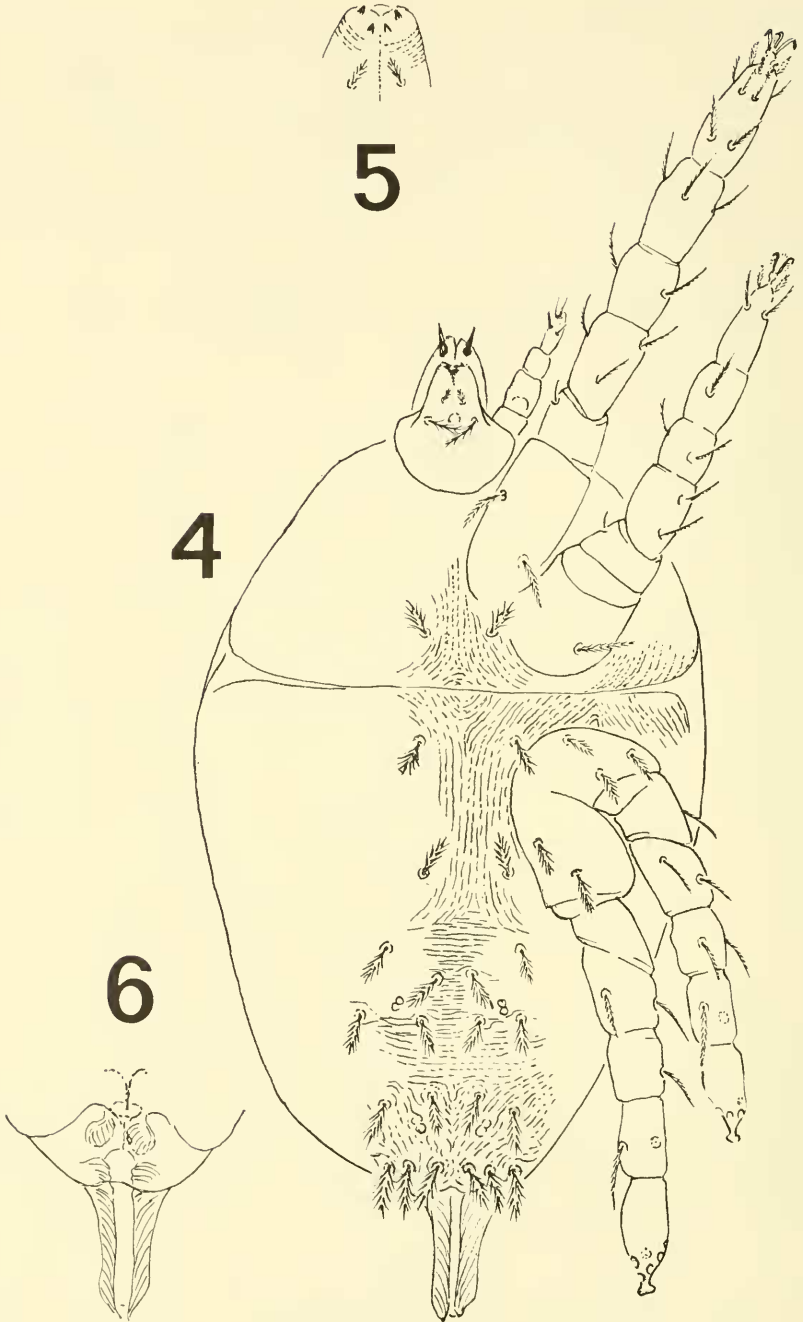
Type-species, *Pseudotydeus perplexus*, new genus and new species.

This new genus is somewhat atypical of the Tydeidae. It differs from other genera in that the genital and anal areas are coalesced, invaginated and protruding posteriorly, and that the empodium of tarsus I is clawlike and rayed. Other empodia padlike, rayed; coxal setal formula: 2-1-3-2; dorsal body setae spinate-pilose setal arrangement transverse with hysterosomal setae L_2 in lateral position; propo-

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Fig. 1-3, *Pseudotydeus perplexus*. 1, dorsum of female. 2, sketch of seta and solenidion of tarsus I. 3, sketch of distal segment of palpus.





dosomal setae P_1 displaced, in transverse line with P_2 ; ventral body setae displaced because of the position of genital and anal complex.

Pseudotydeus perplexus, Baker and Delfinado, new species
fig. 1-6

Female: Palpus four-segmented, with setal formula: 0-1-1-5/6 (the setae on the distal segment are difficult to see); cheliceral bases fused, movable chelae short and strong; rostrum short and broad, posterior pair of spinate-pilose setae longish, anterior pair very short. Dorsum of propodosoma with fine transverse striae anterior to setae and more or less longitudinal striae on posterior and median areas, and with reticulate pattern posteriorly above suture. Propodosomal setal arrangement as figured; setae short, stout and spinate-pilose; P_1 displaced, in transverse line with P_2 ; sensory setae long, hairlike, pilose, each seta situated directly posterior to P_2 ; P_3 in normal lateral position. Hysterosoma with 5 pairs of dorsal and 5 pairs of lateral setae similar to those on propodosoma; setal arrangement normal, as figured; L_2 in normal lateral position, closer to D_2 and D_3 ; D_1 and D_2 far apart; D_{3-5} and L_{2-5} close to one another; striae transverse on dorso-median section of hysterosoma. Venter of body with 3 pairs of ventral setae and 9 pairs of genital, paragenital and anal setae; all ventral setae similar to dorsal setae but shorter. Leg setal formula as follows; numbers represent coxa, trochanter, femur, genu, tibia and tarsus; numbers in parentheses refer to solenidia. I, 2-1-6-4-4 (+1) -12 (+1). II, 1-1-4-4-2-6 (+1). III, 3-1-3-2-2-7. IV, 2-0-2-1-2-7. All leg setae strongly spinate-pilose. Genital and anal areas as figured, protruding posteriorly to form tubular structure similar to egg guide. Ventral striae of propodosoma longitudinal; striae longitudinal in medial area of coxae III-IV and transverse on genital section; with 4 sets of small paired pores as figured. Sejugal suture between propodosoma and hysterosoma distinct; 2 transverse sutures on dorsum of hysterosoma may be due to slide mounting technique. Length of body including rostrum and genital area 210 microns; width 116 microns.

Male: Unknown.

Holotype: Female, U.S. National Museum No. 3581; from old lawn clippings, University Wood Lot, Ohio State University, Columbus, Ohio, June 19, 1962, collected by E. W. Baker.

Paratypes: 2 females with same data as holotype, one at the New York State Museum and Science Service, Albany, New York, and the other in the U.S. National Museum, Washington, D.C.

REFERENCES

- Baker, E. W. 1965. A review of the genera of the family Tydeidae (Acarina). *Advan. Acarology* 2:95-133.
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Fig. 4-6, *Pseudotydeus perplexus*. 4, venter of female. 5, venter of anterior portion of rostrum. 6, genital and anal region.